**Text Generation**

By using a variety of techniques such as rule-based systems, recurrent neural networks (RNNs), transformer models, and reinforcement learning

https://www.linkedin.com/advice/0/how-do-you-evaluate-quality-accuracy-texts-generated#:~:text=The%20GPT%20models%20are%20transformers,text%20in%20a%20coherent%20way.

**What are transformers and gpt-3?**

Transformers are a type of neural network architecture that rely on attention mechanisms to encode and decode information. They can process sequential data, such as text, speech, or images, without using recurrent or convolutional layers, which makes them more efficient and flexible. GPT-3 is a specific transformer model that was trained on a massive corpus of text from the internet, using a technique called self-attention. It can generate coherent and diverse texts on almost any topic, given a few words or sentences as input.

Text-generation models are AI models trained on vast amounts of text. When prompted, they can generate new content by rearranging and combining phrases. Such models can only generate content based on its training data – so while 'new' in the sense of its ordering, the information is never exactly new.

Results can seem human-like and can be applied in use cases ranging from creative-writing assistance to conversational AI chatbots. However, the technology also raises concerns about potential misuse for generating misinformation, impersonating others online and even legal issues relating to copyright and privacy.

**Text-generation Models**

**GPT-4**

**Creator:**[OpenAI](https://openai.com/" \t "_blank)

**First published:**March 2023

[GPT-4](https://openai.com/research/gpt-4) is OpenAI’s flagship large language model. It can generate text from both images and text inputs.

GPT-4 was designed to replace GPT-3 and GPT-3.5, one of the models used to fine-tune ChatGPT. It powers ChatGPT Plus, OpenAI’s $20-a-month premium subscription service.

Not much is known about GPT-4's size and underlying details. OpenAI has, unlike previous GPT models, opted to keep things under wraps. However, the model reportedly is massive at 1.76 trillion parameters - far larger than previous GPT iterations.

**Bard**

[Bard](https://bard.google.com/) is Google’s answer to ChatGPT. Created to compete with Microsoft and OpenAI, Bard is powered by PaLM 2, Google’s flagship large language model.

Bard can generate text and code as well as summarize documents. It also boasts code-generation capabilities, and users can export generated Python code to Replit.

The chatbot supports more than 40 languages.

[**Read**](https://cdn.openai.com/papers/gpt-4.pdf)**the technical paper and**[**news**](https://aibusiness.com/nlp/openai-unveils-gpt-4-and-plans-to-add-it-to-chatgpt-)**about GPT-4 on AI Business.**

**GPT-3**

**Creator:**[OpenAI](https://openai.com/" \t "_blank)

**First published:** June 2020

One of the most well-known text-generation models in the world is [GPT-3](https://openai.com/blog/gpt-3-apps).

While now outdated compared to GPT-4, GPT-3 was routinely tweaked and fine-tuned to be applied to other use cases and applications, such as code generation via [Codex](https://openai.com/blog/openai-codex).

GPT-3 powered a host of applications during its lifetime, including the text-based adventure game [AI Dungeon](https://aidungeon.io/), VR character creation experiences with [Fable Studios](https://www.thesimulation.co/) and social venture projects from [Create Labs](https://createlabs.io/). Despite its many deployments, however, Microsoft held an ‘exclusive license’ to GPT-3.